

**Silicon PNP Power Transistors**

**2SB434**

**DESCRIPTION**

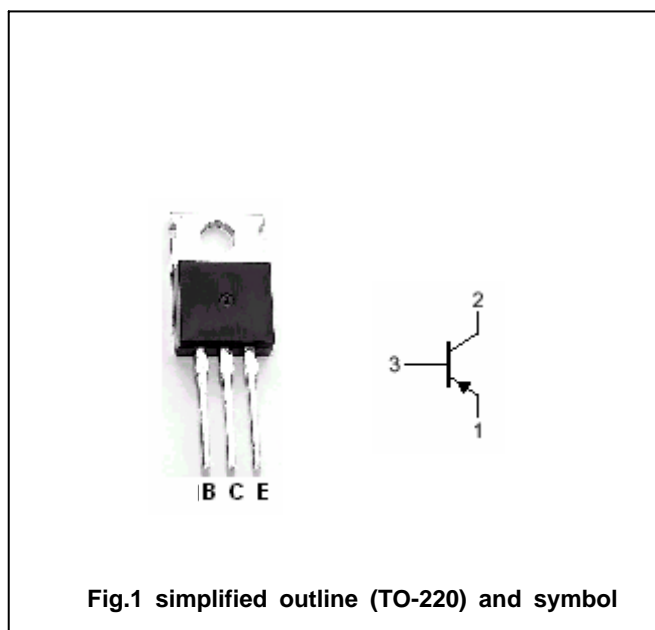
- With TO-220 package
- Complement to type 2SD234

**APPLICATIONS**

- For low frequency power amplifier and switching applications

**PINNING**

| PIN | DESCRIPTION                          |
|-----|--------------------------------------|
| 1   | Emitter                              |
| 2   | Collector;connected to mounting base |
| 3   | Base                                 |



**Absolute maximum ratings(Ta=25 )**

| SYMBOL           | PARAMETER                   | CONDITIONS         | VALUE   | UNIT |
|------------------|-----------------------------|--------------------|---------|------|
| V <sub>CBO</sub> | Collector-base voltage      | Open emitter       | -60     | V    |
| V <sub>CEO</sub> | Collector-emitter voltage   | Open base          | -50     | V    |
| V <sub>EBO</sub> | Emitter-base voltage        | Open collector     | -6      | V    |
| I <sub>C</sub>   | Collector current           |                    | -3      | A    |
| P <sub>C</sub>   | Collector power dissipation |                    | 1.5     | W    |
|                  |                             | T <sub>C</sub> =25 | 25      |      |
| T <sub>j</sub>   | Junction temperature        |                    | 150     |      |
| T <sub>stg</sub> | Storage temperature         |                    | -55~150 |      |

## Silicon PNP Power Transistors

## 2SB434

## CHARACTERISTICS

T<sub>j</sub>=25 unless otherwise specified

| SYMBOL               | PARAMETER                            | CONDITIONS                                       | MIN | TYP. | MAX  | UNIT |
|----------------------|--------------------------------------|--|-----|------|------|------|
| V <sub>(BR)CEO</sub> | Collector-emitter breakdown voltage  | I <sub>C</sub> =-5mA, I <sub>B</sub> =0          | -50 |      |      | V    |
| V <sub>(BR)CBO</sub> | Collector-base breakdown voltage     | I <sub>C</sub> =-1mA, I <sub>E</sub> =0          | -60 |      |      | V    |
| V <sub>(BR)EBO</sub> | Emitter-base breakdown voltage       | I <sub>E</sub> =-1mA, I <sub>C</sub> =0          | -6  |      |      | V    |
| V <sub>CEsat</sub>   | Collector-emitter saturation voltage | I <sub>C</sub> =-3A; I <sub>B</sub> =-0.3A       |     |      | -1.2 | V    |
| V <sub>BEsat</sub>   | Base-emitter saturation voltage      | I <sub>C</sub> =-3A; I <sub>B</sub> =-0.3A       |     |      | -1.5 | V    |
| I <sub>CBO</sub>     | Collector cut-off current            | V <sub>CB</sub> =-40V; I <sub>E</sub> =0         |     |      | -10  | μA   |
| I <sub>EBO</sub>     | Emitter cut-off current              | V <sub>EB</sub> =-4V; I <sub>C</sub> =0          |     |      | -10  | μA   |
| h <sub>FE</sub>      | DC current gain                      | I <sub>C</sub> =-0.5A; V <sub>CE</sub> =-1V      | 40  |      | 240  |      |
| C <sub>OB</sub>      | Output capacitance                   | I <sub>E</sub> =0; V <sub>CB</sub> =-10V, f=1MHz |     | 90   |      | pF   |
| f <sub>T</sub>       | Transition frequency                 | I <sub>C</sub> =-0.5A; V <sub>CE</sub> =-10V     |     | 3    |      | MHz  |

◆ h<sub>FE</sub> Classifications

| R     | O      | Y       |
|-------|--------|---------|
| 40-80 | 70-140 | 120-240 |

